

CLAIMS

What is claimed is:

1. An electrical contact assembly comprising:

a contact terminal comprising a base and two cantilevered deflectable contact arms extending from at least one lateral side of the base, a first one of the contact arms extending in a downward direction and a second one of the contact arms extending in an upward direction; and

a fusible element fixedly attached to an end of the first contact arm,

wherein the fusible element is adapted to be fused to a first pad on a first electronic component, wherein the second contact arm comprises a surface contact area for contacting a second pad on a second electronic component, and wherein the first and second contact arms are adapted to deflect when the contact area of the second contact arm is contacted by the second pad of the second electronic component.

2. An electrical contact assembly as in claim 1 wherein the contact terminal comprises stamped sheet metal.

3. An electrical contact assembly as in claim 1 wherein the surface contact area on the second contact arm comprises a compound curvature.

4. An electrical contact assembly as in claim 1 wherein the first and second contact arms extend from a same lateral side of the base.

5. An electrical contact assembly as in claim 4 wherein the first and second contact arms extend in opposite directions generally parallel to each other.

6. An electrical contact assembly as in claim 1 wherein the end of the first contact arm comprises a concave bottom surface, and wherein a top surface of the fusible element is attached to the end of the first contact arm against the bottom concave surface.

7. An electrical contact assembly as in claim 1 wherein a top surface of the fusible element is attached to a bottom surface of the end of the first contact arm.

8. An electrical contact assembly as in claim 1 wherein the end of the first contact arm extends into the fusible element.

9. An electrical connector subassembly comprising:

a carrier comprising electrically insulative material;

an electrical contact assembly as in claim 1 connected to the carrier,

wherein the carrier comprises an aperture, wherein at least a portion of one of the contact arms extends through the aperture, and wherein the base comprises tabs which are deformed to form a stapled connection of the base with the carrier.

10. An electrical connector subassembly as in claim 9 wherein the carrier comprises a sheet of electrically insulative material, wherein the sheet comprises a plurality of the apertures, and wherein the subassembly

comprises a plurality of the electrical contacts connected to the sheet in an array of multiple rows and columns.

11. An electrical connector subassembly as in claim 9 wherein the carrier comprises a film having a general sheet shape.

12. An electrical connector subassembly as in claim 11 wherein the film is flexible.

13. An electrical connector subassembly comprising:

- a carrier comprising electrically insulative material; and

- a plurality of electrical contact terminals connected to the carrier, each terminal comprising a base and at least two deflectable contact arms extending from at least one lateral side of the base,

wherein the carrier comprises apertures, wherein at least one of the contact arms of each terminal extends through a respective one of the apertures, and wherein the base of each terminal comprises tabs which are deformed to form a stapled connection of the base with the carrier.

14. An electrical connector subassembly as in claim 13 wherein the contact terminals comprise stamped sheet metal.

15. An electrical connector subassembly as in claim 13 wherein a first one of the contact arms extending in a downward direction and a second one of the contact arms

extending in an upward direction, and wherein a surface contact area on the second contact arm comprises a compound curvature.

16. An electrical connector subassembly as in claim 13 wherein the contact arms extend from a same lateral side of the base.

17. An electrical connector subassembly as in claim 16 wherein the contact arms extend in opposite directions generally parallel to each other.

18. An electrical connector subassembly as in claim 13 further comprising a fusible element fixedly attached to an end of a first one of the contact arms, wherein the end of the first contact arm comprises a concave bottom surface, and wherein a top surface of the fusible element is attached to the end of the first contact arm against the bottom concave surface.

19. An electrical connector subassembly as in claim 13 further comprising a fusible element fixedly attached to an end of a first one of the contact arms, wherein a top surface of the fusible element is attached to a bottom surface of the end of the first contact arm.

20. An electrical connector subassembly as in claim 13 further comprising a fusible element fixedly attached to an end of a first one of the contact arms, wherein the end of the first contact arm extends into the fusible element.

21. A method of assembling an electrical contact assembly comprising steps of:

providing a contact terminal comprising a base and two cantilevered deflectable contact arms extending from a same lateral side of the base, a first one of the contact arms extending in an upward direction and a second one of the contact arms extending in a downward direction; and

attaching a fusible element to an end of the second contact arm, wherein the first and second contact arms are adapted to deflect in opposite directions towards the base when the contact assembly is compressed between two electronic components.

22. A method as in claim 21 further comprising attaching the base of the contact terminal and to a carrier comprised of insulative material, the step of attaching comprising deforming tabs on the base of the contact terminal to form a stapled connection of the base to the carrier.